

App. No.: 10/014,842
Art Unit: 1617

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Remarks

Applicants have received and reviewed an Office Action dated August 24, 2006. By way of response, Applicants have amended claims 1 and 9. Claim 1 is amended to recite linoleic acid, which is supported throughout the specification and at least at page 6, line 4 and the Table at page 9. Claim 1 has further been amended to include additional ingredients of the composition, all of which are set forth in the Table at page 9 of the specification. The amendment of claim 9 is in accordance with the common scientific practice of rounding decimals to the next integer.

Claim 20 has been cancelled without prejudice. Claim 21 has been added. Claim 21 is supported in the specification by the Table on page 9 as well as in the originally filed claims. No new matter has been inserted. Claims 1-9 and 21 are pending. Applicants submit that the amended claims are supported by the specification.

For the reasons given below, Applicants submit that the amended and newly presented claims are in condition for allowance and notification to that effect is earnestly solicited.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 1-9 and 20 under 35 U.S.C. § 112, first paragraph. Without acquiescing to the rejection, and solely for the purpose of furthering prosecution of the application, Applicants have amended claim 1 to read on linoleic acid. Claims 2-9 depend from amended claim 1 and therefore include the amendment to claim 1. Claim 20 has been canceled. Accordingly, Applicants respectfully submit that the amended and newly presented claims fully comply 35 U.S.C. § 112, first paragraph and withdrawal of this rejection is respectfully requested.

The Examiner rejected claim 9 under 35 U.S.C. § 112, second paragraph. Without acquiescing to the rejection, and solely for the purpose of furthering prosecution of the application, Applicants have amended claim 9 to recite 46% n-6 PUFA. Accordingly, Applicants respectfully submit that the amended claim 9 fully complies with 35 U.S.C. § 112, second paragraph and withdrawal of this rejection is respectfully requested.

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Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-9 and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious over *Kaimal et al.* Applicants respectfully traverse this rejection and request reconsideration in view of the following arguments.

Kaimal et al. ("Modification of Vegetable Oils by Lipase Catalyzed Interesterification") teaches a particular blends of fatty acids. In contrast, Applicant's invention is a specific blend of fatty acids that is different in several ways from the blend of *Kaimal et al.* The following table compares the amounts of saturated and unsaturated fatty acids in the presently claimed invention and the product disclosed in *Kaimal et al.*, compared to coconut oil.

Fatty acids	Coconut Oil	Kaimal et al.	Presently Claimed Product
Caprylic (8:0)	2	7.5	0
Capric (10:0)	3	11.7	0
Lauric (12:0)	48	39.7	17
Myristic (14:0)	24	21.1	11
Palmitic (16:0)	9	5.4	9
Stearic (18:0)	3	1.0	2
Oleic (18:1)	9	5.4	15
Linoleic (18:2) (omega 6)	2	8.2	46

Applicants' structured lipid is a unique blend that is not obtained by any other process. Applicants' composition has distinctive structural characteristics that can only be defined by the process as set forth in the specification. The MPEP states at section 2113,

"The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product."

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In accordance with the MPEP, the composition of Kaimal et al. does not render Applicants' structured lipid obvious. The process of Kaimal et al. results in measurable quantities of caprylic and capric acid, neither of which are present in Applicants' structured lipid blend, and in fact represent an increase over the levels of these acids compared to the coconut oil starting material. Further, Kaimal et al. disclose 39.7% lauric acid, while Applicants claim 17% lauric acid. Applicants' structured lipid blend is significantly lower in lauric acid than is the blend of Kaimal et al. In fact, Kaimal et al. does not produce a significantly lower level of lauric acid than is present in coconut oil, at 48%; Applicant's process results in significant lowering of lauric acid to 17%. Similarly, the blend of Kaimal et al. results in a small lowering of myristic acid, from 24 to 21.1% compared to coconut oil, while Applicants' structured lipid contains only 11% myristic acid. Oleic acid in Applicants' structured lipid is increased over the 9% in coconut oil, while the process of Kaimal et al. results in a lowering of oleic acid to 5.4%. And, as has been pointed out previously, linoleic acid is significantly higher in Applicants' formulation, at 46%, than in coconut oil at 2%, while the process of Kaimal et al. only results in an increase from 2% to 8% linoleic acid.

The Office Action asserted that the level of linoleic acid realized by applicants is obvious because the claims are product-by-process claims, and the levels of linoleic acid realized by Applicants represented only an optimization of the process of Kaimal et al. Applicants submit that the mixture of fatty acids in Applicants' structured lipid blend is a direct result of the particular process used. In other words, it is not an optimization of Kaimal et al. that led to the blend realized by Applicants. Rather, it is a different process that resulted the specific blend of fatty acids which is now fully set forth in claim 1. This is evident in the fact that the process of Kaimal et al. *increased* the percent caprylic and capric acid and *decreased* oleic acid compared to coconut oil, while Applicants' process results in *decreased* percent caprylic and capric acid and *increased* oleic acid. The two processes are thus fundamentally different and their compositions are also fundamentally different by virtue of the different processes. Optimization of the process of Kaimal et al. would not result in the blend of Applicants' structured lipid.

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Thus, the only way to reach the specific blend set forth in amended claim 1, apart from using Applicants' process, would be to make an admixture. As has been pointed out in previous responses, the differences between blended coconut and safflower oil and a structured lipid prepared using coconut oil triglycerides and safflower oil fatty acid concentrates have been described (Rao, R. et al., Molecular and Cellular Biochemistry, vol. 248, pp. 25-33 (2003)). An admixture is not equivalent to Applicants' structured lipid. Thus, adjusting the ratios of fatty acids to reach the blend claimed in amended claim 1 would not result in the same product as the structured lipid product realized by Applicant.

Additionally, Applicants' structured lipid does not represent an optimized blend, but rather a unique blend of structured lipids that is the result of Applicants' process. Optimization, as the term is understood to the skilled artisan, means an ideal mixture for efficacy in a particular application. Applicants do not claim, nor is it to be found in the literature, what an "ideal" or optimized blend of fatty acids would be. Thus, Applicants claim a particular blend of fatty acids that is unique because it is only available via Applicant's process.

Applicants respectfully submit that claim 1 is allowable over Kaimal et al. and request that the rejection be withdrawn as to claims 1-9.

New claim 21 recites two key elements of Applicants' composition, namely linoleic acid and lauric acid. Although this claim has not been examined, Applicants submit that under the reasoning applied above the particular percentages of these components are nonobvious over Kaimal et al.

Accordingly, based on the foregoing differences, Applicants respectfully submit that the cited reference neither teaches nor suggests the presently claimed invention, and withdrawal of this rejection is respectfully requested.

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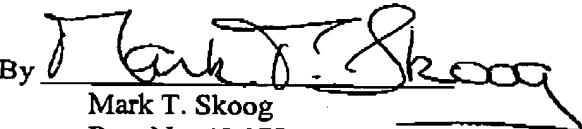
Conclusion

In summary, Applicant submits that each of claims 1-9 and 21 is in condition for allowance, and notification to that effect is earnestly solicited. The Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below, if the Examiner believes that doing so will expedite prosecution of this patent.

Respectfully submitted,

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Dated: 22 Feb 07

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MTS:SMM